

Remarks

Claims 1-11 were pending in the subject application with claims 7 and 8 withdrawn as being directed to non-elected subject matter. Claims 1, 2, 6, 9, and 10 have been amended. No new matter has been introduced. Support for the amendments can be found throughout the original specification (see, for example, page 2, lines 22-25). Accordingly, claims 1-6 and 9-11 are presented for further consideration.

The amendments to the claims have been made in an effort to lend greater clarity to the claimed subject matter and to expedite prosecution. These amendments should not be taken to indicate the applicants' agreement with, or acquiescence to, the rejections of record. Favorable consideration of the claims now presented, in view of the remarks and amendments set forth herein, is earnestly solicited.

Initially, the applicants note that two of the references listed on the Information Disclosure Statement filed February 5, 2007 were lined through and not made of record because they are in a foreign language. The applicants wish to point out that the corresponding U.S. patent (U.S. Patent No. 5,498,761) was listed as a translation for DE 3 834 526 and that the International Search Report was provided as an explanation of the relevancy of these two references. Thus, the references should have been considered under 37 C.F.R. §1.98(a)(3). Accordingly, the applicants respectfully request that the examiner indicate consideration of these references by initialing the form PTO/SB/08 and attaching it with the next communication.

Claims 1-6 and 9-11 have been provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 11, 12, and 14-24 of copending Application No. 10/899,888 (hereinafter referred to as "the '888 application"). The applicants note that claims 1-6 and 9-11 of the subject application require the use of a conductive polymer. Thus, the applicants submit that claims 1-6 and 9-11 of the subject application are not unpatentable over at least claims 11, 12, 14-19, 21, and 24 of the '888 application. The applicants need not address this issue with regard to claims 20, 22, and 23 of the '888 application because this rejection is provisional. Upon allowance of the '888 application, the applicants will consider the filing of a Terminal Disclaimer.

Claims 1-6 and 9-11 have been rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 10 of U.S. Patent No. 7,485,403 (hereinafter

referred to as “the ‘403 patent”). The applicants note that the ‘403 patent only has four claims and therefore includes no claim 10. In addition, all four claims of the ‘403 patent are drawn to a method while claims 1-6 and 9-11 of the subject application are drawn to a composition. Accordingly, the applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-6 and 9-11 on the ground of nonstatutory obviousness-type double patenting based on the ‘403 patent.

Claims 1-4, 6 and 9 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 1 has been amended to clarify that the laser-markable material forms a mark when irradiated with a laser at a wavelength of 10,600 nm and that the laser-markable material absorbs radiation at a wavelength of 10,600 nm. Claim 1 has also been amended to clarify that the conductive polymer absorbs IR radiation. In addition, claim 6 has been amended to remove recitation of the term “substantially.” Though the applicants do not agree that the use of “labile in claim 2 as previously presented was unclear, claim 2 has been amended to clarify that the labile group can undergo an elimination reaction to give a color-forming entity, as discussed at page 2, lines 22-25 of the original specification.

The applicants submit that the claims particularly point out and distinctly claim the subject matter regarded as the invention. Accordingly, the applicants respectfully request reconsideration and withdrawal of the rejection under §112, second paragraph.

Claims 1-3, 5, 6, 10, and 11 have been rejected under 35 U.S.C. §102(b) as being anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Lee *et al.* (U.S. Patent No. 6,351,063; hereinafter referred to as “Lee”). The applicants respectfully traverse this ground for rejection.

The Action asserts that “Lee discloses a composition comprising a conductive polymer, a solvent, a binder, and a material comprising a multivalent metal that undergoes a color change due to a change in oxidation state, on irradiation” (citing column 3, lines 12-19 and column 4, lines 1-6). However, neither the cited section of Lee nor the remainder of the document disclose that the Lee composition includes a material comprising a multivalent metal that undergoes a color change due to a change in oxidation state, on irradiation. In addition, the Action provides no evidence that this is true. In fact, many of the metals recited at column 3, lines 12-19 of Lee have only one oxidation state and can therefore not possibly undergo a change in oxidation state. Regarding those which may have more than one oxidation state, no evidence or scientific rationale is provided in the Action as to

show that any of these metals undergoes a change in color if there is a change in oxidation state. There is no justification for the implication in the Action that such a feature is inherent. “In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990) (emphasis in original); see also MPEP §2112(IV).

Claim 1 of the subject invention requires that the composition comprises a laser-markable material that absorbs radiation at a wavelength of 10,600 nm, such that the laser-markable material forms a mark when irradiated with a laser at a wavelength of 10,600 nm. The Action at page 6 concedes that Lee does not disclose any material which is laser-markable or absorbs radiation and a wavelength of 10,600 nm or undergoes a color change due to a change in oxidation state on irradiation. The Action then asserts that “such is understood as intrinsic or inherent to the composition of Lee disclosing a black pigment which would absorb to at least a degree, wavelengths of 10,600 nm, and conductive particles of metals and metal oxides.” Again, the Action provides no evidence for the assertion that the features of the claimed invention that are not taught by Lee would be inherent. The applicants note that, even assuming for the sake of argument that one of the given materials did absorb radiation at a wavelength of 10,600 nm, it would not necessarily be laser-markable, such that it forms a mark when irradiated with a laser at a wavelength of 10,600 nm. It is one thing to absorb radiation, but another to cause a mark when irradiated.

As discussed above, “[i]n relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art.” *Ex parte Levy, supra*. (emphasis in original); see also MPEP §2112(IV). Since no such evidence has been presented, the rejection under §102 cannot stand.

Turning now to the rejection in the alternative under §103, the applicants submit that the claimed invention is not obvious over Lee. A person of ordinary skill in the art would not have had any reason to modify the Lee composition to include the missing elements of the claimed invention. In addition, in making the rejection under §103, the Action relies on the fact that Lee discloses “pigment particles for adjusting the transmittance of light at different wavelengths” (citing column 4,

lines 1-3 of Lee). However, that is wholly contrary to the claimed invention. Claim 1 recites that the conductive polymer absorbs IR radiation; it does not transmit it.

Regarding claim 3, as discussed above, no evidence has been provided to support the implication in the Action that it is inherent that the Lee composition includes a material comprising a multivalent metal that undergoes a color change due to a change in oxidation state, on irradiation.

In rejecting claims 5 and 6, the Action relies on Lee's disclosure of black pigment particles and pigment particles. However, there is no teaching or suggestion in Lee that the pigment particles are different from typical pigments, such as those discussed at page 3, lines 7-11 of the subject specification. Such compositions are different from color-formers; pigments have a color, but do not form a color. The applicants also note that the black pigment particles of Lee do not transmit light and are thus contrary to the color-formers of claim 5. Thus, Lee fails to teach the limitations of claims 5 and 6 of the subject invention.

As discussed above, Lee fails to teach or suggest several features of the claimed invention. Though the Action asserts that certain features are inherent, no evidence or scientific reasoning has been provided to support such assertions. Accordingly, the applicants respectfully request reconsideration and withdrawal of the rejection under 35 U.S.C. §102, and in the alternative under 35 U.S.C. §103(a), based on Lee.

Claims 4 and 9 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Lee in view of Madan *et al.* (U.S. Patent no. 5,567,763; hereinafter referred to as “Madan”).

The deficiencies of Lee, with respect to the claimed invention, have been discussed above. Madan does not cure, or even address, these deficiencies.

Moreover, though ammonium octamolybdate (AOM) may be a known flame-retardant, as disclosed by Madan (at column 7, lines 29-37), there is simply no reason for a person of ordinary skill in the art to turn to Madan for potential modifications to Lee. The skilled person would not look to Madan for additives to the sort of system disclosed by Lee because the purposes of the two documents are quite different. The mere fact that the purported prior art could have been modified or applied in some manner to yield an applicant's invention does not make the modification or application obvious unless “there was an apparent reason to combine the known elements in the fashion claimed” by the applicant. *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398, 127 S. Ct. 1727, 82 U.S.P.Q.2d 1385 (2007). Additionally, “there must be some reason for the

combination other than the hindsight gleaned from the invention itself." *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143 (Fed.Cir.1985).

In this case, absent the applicants' disclosure, a skilled artisan would not have had a reason to include AOM with the compositions taught by Lee. The Supreme Court has recognized that an applicant's invention is not "proved obvious merely by demonstrating that each of its elements was, independently, known in the (purported) prior art." *KSR, supra*.

Moreover, a person of ordinary skill in the art would not have been motivated to introduce AOM into the Lee compositions because the addition of AOM may interfere with the pigments present in Lee. Lee provides pigment particles for adjusting the transmittance of light (column 2, lines 57-60), and it may have been counter-productive to introduce AOM in the Lee composition because the inclusion of such a compound would likely interfere with the desired light transmittance. If a proposed modification would render the (purported) prior art invention being modified unsatisfactory for its intended purpose, then a skilled artisan would not have had a reason to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); MPEP §2143.01(V).

As discussed above, the combination of Lee and Madan fails to teach or suggest several features of the claimed invention. Moreover, a person of ordinary skill in the art would not have had a reason to modify the Lee composition to include any octymolybdate, let alone AOM as required by claim 9. Accordingly, the applicants respectfully request reconsideration and withdrawal of the rejection of claims 4 and 9 under 35 U.S.C. §103(a).

In view of the foregoing remarks and amendments to the claims, the applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR 1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

The applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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